

Formula 4

wherein,

R₁ is selected from the group consisting of hydrogen, alkyl, amino, alkylamino, and N,N-dialkylamino;

R₂ is selected from the group consisting of hydrogen and alkyl; and

R₃ is an electron-donating substituent.

Claim 33 (New). The method of claim 32, wherein the compound, composition or mixture is a base oil or mixture thereof suitable for the intended use as a lubricant.

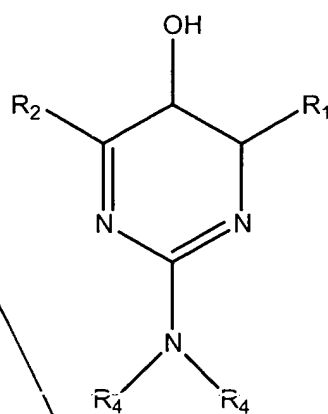
Claim 34 (New). The method of claim 33, wherein the base oil is selected from the group consisting of a conventionally refined mineral oil, an oil derived from coal tar or shale, a vegetable oil, an animal oil, a hydrocracked oil, a synthetic oil, or any mixture thereof.

Claim 35 (New). The method of claim 32, wherein R₂ is selected from the group consisting of alkoxy, amino, N-alkylamino and N,N-dialkylamino.

Claim 36 (New). The method of claim 32, wherein the compound of claim 1,
wherein,
R₁ is selected from the group consisting of hydrogen and alkyl;
R₂ is selected from the group consisting of hydrogen, and alkyl; and
R₃ is selected from the group consisting of alkoxy, amino, N - alkylamino, and N,N-
dialkylamino.

Claim 37 (New). The method of claim 32, wherein the compound of claim 1,
wherein,
R₁ is selected from the group consisting of amino, N-alkylamino and N,N-dialkylamino;
R₂ is selected from the group consisting of hydrogen, and alkyl; and
R₃ is selected from the group consisting of alkoxy, amino, N-alkylamino, and N,N-
dialkylamino.

Claim 38 (New). The method of claim 32, wherein the pyrimidine compound is of
the following formula:



Formula 7

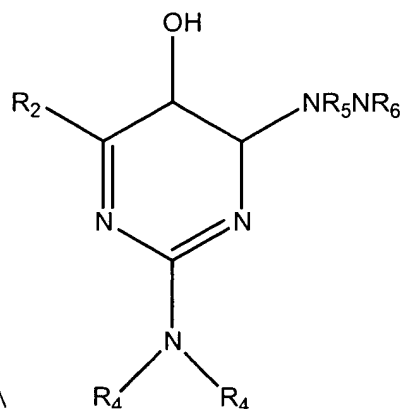
wherein,

R₁ and R₂ are H, methyl, or t-butyl; and

R₄ is H, methyl, ethyl, t-butyl, pentyl, octyl, or phytyl.

Claim 39 (New). The method of claim 38, wherein R₂ is methyl, or t-butyl.

Claim 40 (New). The method of claim 32, wherein the pyrimidine compound is of the following formula:



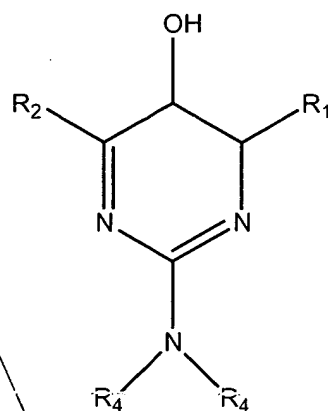
Formula 9

wherein,

R₂ is H, methyl, or t-butyl; and

R₄, R₅, and R₆ are H, methyl, ethyl, t-butyl, pentyl, octyl, or phytyl.

Claim 41 (New). The method of claim 32, wherein the pyrimidine compound is of the following formula:



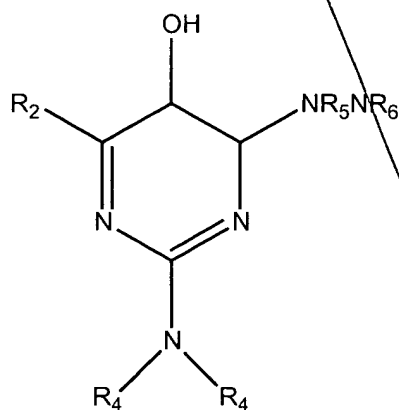
Formula 7

wherein,

R₁, R₂, and R₄ are H, or an alkyl group.

Claim 42 (New).

The method of claim 32, wherein the pyrimidine compound is of the following formula:



Formula 9

Sub B1
wherein,

R₂, R₄, R₅, and R₆ are H, or an alkyl group.

Claim 43 (New). The method of claim 32, wherein the pyrimidine compound is 5-pyrimidinol.

PS Claim 44 (New). The method of claim 32, wherein the pyrimidine compound is 2,4,6-trimethyl-5-pyrimidinol.

Sub B1 Claim 45 (New). The method of claim 32, wherein the pyrimidine compound is 2-methyl-4,6-di-tert-butyl-5-pyrimidinol.

Claim 46 (New). The method of claim 32, wherein the pyrimidine compound is 2-methoxy-4,6-dimethyl-5-pyrimidinol.

Claim 47 (New). The method of claim 32, wherein the pyrimidine compound is 2-N,N-dimethylamino-4,6-dimethyl-5-pyrimidinol.

Claim 48 (New). The method of claim 32, wherein the composition in which oxidation is inhibited is a petroleum composition selected from the group consisting of lubricating compositions and liquid organic fuels, and:
the introducing step reduces the oxidative environment in the petroleum composition.